THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXIII. THURSDAY, DECEMBER 27, 1860. No. 22.

OBSERVATIONS UPON A MORBID CONDITION OF THE NECK OF THE BLADDER NOT DESCRIBED BY SURGICAL AUTHORITIES.

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[Continued from page 414.]

CHILDREN who suffer from incontinence of urine may be arranged under three classes. In the first class, the affection is constant and is due to some special cause; in the second, it is intermittent in its character, occurring during the day as well as in the night; while in the third class, it is nocturnal only. Now, contraction of the neck of the bladder plays its part, to a greater or less extent, in all these three classes, but more especially in the first, where the affection is not intermittent. In the second class, the urine passes off involuntarily, not only during sleep, but also during the day, the patient not unfrequently finding his clothes wet, without being conscious of the escape of urine from the bladder. He is at all times obliged to micturate more frequently than natural, and when called upon can scarcely resist the desire for a moment. This form of incontinence is intermittent, the subject of it being at times almost entirely rid of the complaint.

Cases of this description occur most frequently among children of a lymphatic temperament, and who require a tonic treatment. They even appear, in many cases, to be hereditary, as we have seen several members of a family afflicted, as were their parents before them. This hereditary tendency seems also to have its influence in the nocturnal form.

The cases coming under the third class do not always constitute a malady, properly speaking, but often merely a habit. Thus we may separate children suffering from nocturnal enuresis only, into three categories. The first is made up of those who are too lazy to rise from bed to satisfy Nature at her first bidding. The second, of those who sleep so soundly that the sensation which precedes the desire to urinate is not sufficient to awaken them—the

neck of the bladder is the only portion which *feels*, so to speak, and which, accustomed to obey this sensation, opens mechanically and suffers the urine to pass without the brain being warned. The third is made up of those who dream that they are performing the act under the usual circumstances, that they are urinating against a wall, or into a vessel, &c.

If we examine the urine in these cases of incontinence, we sometimes find it pale colored and of rather low specific gravity, but most frequently neither the quality nor the quantity of this secretion seems to be at fault, so that we cannot ascribe the affection to this source.

Most writers on the subject of incontinence of urine in children ascribe the affection to a morbid irritability of the neck of the bladder, or to an exaltation of the natural sensibility of that part, often unaccompanied by any appreciable change of structure. This morbid irritability may depend upon a variety of causes, and it may be direct or sympathetic. In the latter case, it may depend upon sympathy with a diseased condition of the rectum, vagina, uterus, or kidneys, &c. But when the cause is direct, in the majority of cases we contend that it is owing to a permanent contraction, more or less well marked, of the muscular fibres of the neck of the bladder. Accordingly we can easily explain the beneficial effects of belladonna, when employed in the treatment of these cases, by its power to relax the muscular fibres, and by the influence which it exerts over the nervous system. By the relaxation of the muscular fibres, a morbid condition which is sufficient to keep up a constant irritability about the neck of the bladder is done away with; by the influence which it exerts upon the system generally, some peculiar diathesis, or at least constitutional cause, upon which the contraction itself may depend, is overcome.

In our own practice, we have met with signal success in the treatment of enuresis in children by the use of belladonna, and lately we have the results of a series of carefully conducted observations upon this affection, by Dr. Hewson,* of New York, which are at once conclusive and satisfactory.

Dr. H. founds his observations upon 63 cases, which were under his constant control and supervision during a period of five months, in a House of Refuge. He cites the influence of the urinary secretion, diet, atmosphere, masturbation, and general causes in the production and maintenance of this affection. Of these causes, the influence of the atmosphere seemed the most decisive—a sudden fall in the temperature having the effect to increase the number of those who wet the bed. But it is in the results of the treatment as conducted by Dr. H., that we find the most conclusive arguments in favor of our theory. After repeated and carefully-conducted trials of a variety of drugs, and of various therapeutic measures,

* The American Journal of Medical Sciences, October, 1858.

he found what might be almost considered a specific in the employment of belladonna. So that it certainly does not seem irrational to attribute the majority of these cases to some local cause, which local cause we find in the contraction of the muscular fibres at the neck of the bladder; the belladonna alone possessing the necessary power to overcome this contraction, or at least being best adapted to this purpose.

We have spoken of an hypertrophied condition of the submucous tissues at the lower portion of the urethro-vesical orifice as a consequence and complication of contraction. This condition involves principally that portion which is termed the uvula, and is due, in the first place, to an hypertrophy of the muscular fibres which associate the ureters with the urethra, at this particular point, and to a consequent abnormal development of the mucous membrane, and the submucous tissue—a condition, which at once shows that there has long been an undue amount of expulsory effort on the part of the bladder.

It is well known that several French writers describe the bladder as being provided at its orifice (urethro-vesical) with two lips, one situated anteriorly, and the other posteriorly. M. Mercier speaks of an hypertrophied condition of the inferior or posterior lip or "valvule," as the result of undue expulsory effort of the organ. So again this very state is described by other authors, particularly by Mr. Guthrie, as constituting a "bar" at the neck of the bladder, without any prostatic disease being present. He says, "An elastic structure exists at the neck of the bladder, and may be diseased, without any necessary connection with the prostate gland."

The term "bar" and "bar-like ridge," at the vesical neck, has been used to describe a variety of affections of this part. We would simply describe an obstruction depending upon an hypertrophied condition of the tissues situated at the lower portion of the urethro-vesical orifice, the result, as we have said, of contraction.

There is another complication attending contraction of the neck of the bladder, which is not unfrequent, and which consists in a contracted condition of the sphincter ani. In many cases, we even find that the contraction is not confined to these muscular fibres, but that it also attacks the muscles of the perinæum. Some patients complain more of these symptoms than of any trouble at the neck of the bladder.

The anus becomes the seat of acute, lancinating pains, which are exasperated on pressure; there is obstinate constipation, and great pain on going to stool. This constitutes the ano-vesical neuralgia of some authors.

Velpeau, in speaking of this condition, says, "There is a very singular malady, which appears to me to have its seat at the neck of the bladder, much more even than in the anus, and to depend,

frequently, upon a hemorrhoidal condition of the lower portion of the rectum."

Romberg, also, in the chapter on "Spasm in the range of the nerves supplying the muscles of micturition," says, under the head of *Spasm of the bladder, Dysuria spastica*, "There is a frequent and violent desire to evacuate the contents of the cavity, with a painful sense of pressure in the vicinity of the outlet of the bladder, resembling the symptoms of colic. The less urine is discharged, the more the desire to micturate, and the pain increases, and these symptoms extend to the neighboring muscles of the anus and perinæum, whilst the abdominal muscles are not affected."

Again, under "Spasm of the Sphincters" he says, "There is generally a sudden retention of urine, accompanied by a violent constringing pain at the lower vesical region. The action of the abdominal muscles is increased in order to surmount the difficulty. The muscles of the anus are not unfrequently involved in the spasm. If a sound is introduced, it meets with an impediment at the membranous portion of the urethra," &c.

Diagnosis.—In addition to the pain and difficulties attending micturition, of which we have spoken, and in addition to the other physical signs, it is by local explorations, by the introduction of instruments, that we are to establish the presence of contraction of the neck of the bladder.

When we introduce a bougie or catheter into the healthy urethra, and push it very gently along the canal, we meet with a slight resistance, but a resistance which yields almost immediately. In contraction, on the contrary, the resistance is similar to that afforded by a stricture, although, of course, it is not so great or well marked. Moreover, that peculiar grasping of the instrument which we meet with, when it is fairly engaged in the stricture, is wanting.

After a moment's cessation, this resistance yields, and the instrument is allowed to pass quite freely as far as the urethro-vesical orifice, where a similar resistance is met with, which also soon yields, the patient experiencing during this time a burning sensation in the parts. When the bougie or catheter is withdrawn, the resistance is found to be much diminished—in fact, is scarcely perceptible.

It must be confessed that in many cases it requires a certain delicacy of manipulation, which the constant introduction of instruments into the urethra can alone give, to detect the presence of contraction. Still, in the exploration of the urethra in these cases, we are not so liable to be misled, as in those where the symptoms point to stricture alone. Undoubtedly, the most common impediment to the free passage of a bougie or catheter, apart from stricture, is the enlargement of the lacunæ of the urethra. Pouches are thus formed, into which the point of an instrument, particularly if it be a small one, may readily enter, and its on-

ward course be interrupted. This condition is, of course, most frequently met with, where stricture is present, but it is sometimes found as the consequence of long-continued irritation of the mucous membrane, where there does not exist the least reduction in the calibre of the canal. These lacunæ, as is generally well known, lie on both the upper and lower aspects of the urethra, but particularly on the lower.

Another impediment to the passage of an instrument consists in an hypertrophied condition of the natural folds or rugæ of the mucous membrane. These sometimes become so enlarged and thickened, that the point of a moderately-sized instrument cannot fail to hitch against them, although, at the same time, they may not produce any perceptible obstruction to the flow of the urine. The deception produced by the presence of these rugæ is the greater, inasmuch as it is in the membranous and adjacent portion that they chiefly abound.

Again, in the prostatic portion of the urethra, a complete stoppage may be given to an instrument, although there may be no contraction or any enlargement of the glands. The prostatic and ejaculatory ducts are sometimes considerably dilated, and the sinuses on each side of the verumontanum become deepened, so that it is evident that the point of a small instrument may become entangled in them.

The "uvula vesicæ" may also become enlarged and elevated, quite independent of contraction, in such a way as to offer direct opposition to the introduction of an instrument into the bladder.

These deceptive impediments to the formation of a ready and satisfactory diagnosis are, however, removed by making use, in the explorations of the urethra, of a full-sized instrument, the kind and description of which we shall designate when we speak of the treatment of contraction.

The most frequent complication attendant on organic stricture, is unquestionably spasm, and there are many cases of contraction where this condition is present in a very marked degree. In almost all cases of organic stricture, spasm is apt to be excited by exposure to cold, wet, or much fatigue, or by too great indulgence in the pleasures of the table. In some instances, however, the proneness to spasm is so strong as to be brought on by the most trivial causes, and it would sometimes appear to occur without any assignable cause. The same may be said of the spasm attendant upon contraction.

In establishing the difference between the spasm attending contraction and that attending organic stricture, we must be governed almost entirely by the history of the case. So, also, in distinguishing between the spasmodic action accompanying contraction, and that which may be termed pure spasmodic stricture without any appreciable local lesion, in addition to the history we must take into consideration the extreme rarity of this latter condition.

That such cases do sometimes occur, however, being examples of what may be termed "centric" spasmodic action, the irritation causing it having its origin in the nervous centres, there can be no question. One such case is reported by Mr. Guthrie, where a gentleman was twice seized, over a period of several years, with retention of urine from spasmodic action of the compressores urethræ, without there being the slightest evidence of irritation in the urethra. Those cases, however, in which violent spasm of the compressores urethræ arises from a long-continued effort to resist the evacuation of the contents of the bladder, should not be viewed as examples of pure spasmodic stricture.

Besides the history and general symptoms of the case, another important difference to be borne in mind between spasmodic and organic stricture consists in this, that the former admits the passage of both large and small instruments, although the forced dilatation may be accompanied by more or less pain, while the latter will admit only those instruments which are in relation to its calibre.

Finally, it is the more important to arrive at a true diagnosis of this affection, from this very fact that it so closely simulates organic stricture. When, therefore, a patient presents himself in early, adult life, or even in a more advanced period, with certain symptoms, such as we have described, symptoms which are persistent, and which have come on and continued for a longer or shorter period, without any very evident cause, it behooves us to be on our guard lest we pronounce the affection, even on examination by exploration, to be one of stricture or of calculus of the bladder. In most of these cases, on inquiry, we shall find that the mind of the patient is more or less distressed; that an examination has been made, that the introduction of the instrument caused a good deal of suffering, especially at the neck of the bladder, and that he has been told that he has a stricture, or certainly a calculus.

Now, we repeat, not only a careless practitioner, but even a good surgeon may be led into error unless the greatest care is taken to arrive at the truth. We have, at the present moment, under our care a very striking instance of a want of discrimination in the treatment of these cases. A merchant, of about 45 years of age, was sent to us for examination and diagnosis. On inquiry, the following was the history. About four years ago, he first perceived an irritability about the bladder, causing him to rise at night. The stream of urine is now rather smaller than natural, and not so well thrown out. He is obliged to strain in order to commence, and just at the moment of micturition there is a sharp pain at the neck of the bladder. Both during and for a few moments after micturition, there is pain, which the patient refers to the fossa navicularis; this pain is also felt at times in the anus, and perinæum, and above the pubes. Has suffered from attacks of rheumatism. Otherwise, health is pretty good. This gentleman

had consulted two or three medical men, who had examined him, and had introduced instruments into the urethra. He had been informed that he was laboring under stricture, and that probably he had calculus also, although none could be detected. The mind of the patient was a good deal distressed.

From the history of the case, we at once judged that there was contraction of the neck of the bladder, and on a careful exploration of the urethra and bladder, we detected neither stricture nor calculus, but a certain amount of resistance at the membranous portion of the canal. Suffice it to say, that a treatment adapted to the removal of this contraction was immediately commenced, and is still pursued, with an immediate mitigation of all the previous symptoms. Micturition is now well performed, the irritability of the bladder has passed, and the mind of the patient is bright and hopeful.

In cases like the one just mentioned, if the patient be convinced that he has stricture or calculus, particularly if his fears have been corroborated by the opinion of the surgeon, there can be little doubt that all the symptoms, and even the affection itself, may be greatly aggravated by the mental influence. We have already spoken of nervous agency in the production of contraction of the neck of the bladder.

(To be continued.)

THE PATHOGENESIS OF CHLOROSIS.

[Translated from the "Archiv. der Wissenschaftlichen Heilkunde," vol. iv., part 3.]

It is known that fewer colored blood-corpuscles are found in chlorotic than in healthy blood: while in the latter one cubic millimetre contains from four and a half to five millions, the number in the former falls as low as to two and a half millions in the same quantity. It is known, too, that the colored blood-corpuscles contain iron, and that chlorotic blood is therefore deficient in iron; and further that the deficiency of chlorotic blood in colored blood-corpuscles (and in iron) is the consequence of an impaired state of the formative functions (Anamorphosis), and not the result of increased waste (Katamorphosis); for the urine of chlorotic patients is poor in solid materials. Lastly, it is known that the small amount of iron which the healthy organism appropriates to itself from the most varied diet—as from flesh, milk, eggs, water, &c., fully suffices for the needs of the system; especially as in the healthy state the bile is the only secretion that contains iron, and yet the ferruginous contents of the bile are in great measure re-absorbed from the alimentary canal. How, then, is the occurrence of chlorosis in a healthy girl to be explained? She receives still the same ferruginous articles of food; it cannot, then, depend upon a want of iron, or upon a withdrawal of iron from the system, for these conditions do not exist; and

yet the girl, with a constant supply of the same amount of iron, becomes chlorotic, i. e. there is a failure in the formation of red blood-corpuscles. What is this owing to? The vitalist, who ascribes to the sanative power of nature a Promethus-like contrivance and action in the preservation and restoration of health, is compelled to have recourse to a supposed error or caprice in regard to the direction that this sanative power takes, in order to explain the occurrence of chlorosis. But I am glad that the time is past in which such phrases and terms are deemed satisfactory, and in which it was fancied that an already obscure subject was to be explained by something utterly unintelligible. Now when we ask for a substantial reason as to why chlorosis should occur with a sufficient supply of iron, the theory hitherto held is at a loss for an answer. The theory, to be sure, contains the truth, but it does not contain the whole truth; a link is wanting in the account of the origin of the disease. The organism, in fact, lacks the power to apply the iron furnished it to the formation of hematine. Upon what does this want of power depend? We find the answer to this question in a discovery of Lehmann. Physiological chemistry has, up to this time, made the various excretions the objects of its researches, and especially the urine. Its results therefore, at best, have been of interest only as means of diagnosis. But where it has more thoroughly investigated the changes of tissue, fruitful results are to be found for practice, for pathology, and for therapeutics. I may mention, for example, the value of that beautiful discovery of Halwachs and Kühne, that benzoic acid in its passage through the liver is converted into hippuric acid by the decomposition of the glycocholic acid. From this Falck inferred, that benzoic acid must be almost a specific against the condition known as icterus; and experience has proved it to be so. In like manner, for the explanation of the origin of chlorosis, I will show the value of Lehmann's discovery that hematine is a glucoside.

We know from Bernard that the liver is a sugar-secreting organ; and we know, also, that in disease the secretions of the different glands vary in amount, appearing at one time excessively increased, and, at another, diminished or even entirely suppressed. There is no conceivable reason why this should not be the case with the secretion of sugar in the liver; indeed, we know already that this secretion is increased in many forms of diabetes mellitus, and that in all febrile diseases it is entirely suspended. We will now suppose, for a moment, and the supposition does not stand at all in our way, that the sugar-secretion of the liver has for some time been diminished; what will be the first consequence of such diminution? Inasmuch as hematine requires sugar for its formation (for, according to Lehmann's beautiful discovery, it is like salicin, phloridzin, tannin, &c., a combination of sugar, or a glucoside), therefore, when there is a failure in the supply of liver-sugar, the formation of the coloring matter of the blood will not be accom-

plished, even when the amount of iron is sufficient as before; and consequently the construction of colored blood-corpuscles will be stopped; or, in other words, the chlorotic condition will originate. The essential cause, then, of the occurrence of chlorosis is a deficiency or cessation of the secretion of liver-sugar; the fact that the supply of iron is not used in forming hematine, is only a consequence of the former circumstance, and is not the real cause of the disease.

If the supposition thus made be true, viz., that chlorosis depends upon a defective secretion of sugar by the liver—a supposition, the correctness of which has, we think, been proved analytically and synthetically—three inferences may be drawn from it:

1st. Chlorosis is to be cured by means of sugar, which supplies what is wanting through the failure of the liver.

2d. Chlorosis is to be treated by every means which can restore the sugar-making function of the liver to the normal condition.

3d. The large doses of the preparations of iron with which chlorosis is empirically treated, effect the cure, not, as is universally believed, by supplying the requisite iron to the body, but because these large doses operate by promoting and increasing the secretion of sugar in the liver.

1. If the deficiency of liver-sugar is to be supplied by the ingestion of sugar, it must be a sugar like that of the liver, i. e. grape, and not cane-sugar. For though the healthy organism may be able to convert the cane-sugar into grape-sugar, yet the question is, whether the impaired digestion of chlorotic patients is equal to the task. Does grape-sugar, then, cure chlorosis? In northern Schleswick, where I practised medicine for twelve years, and, as I have been told, in many parts of Hanover, honey is a popular remedy for chlorosis; and I can attest its efficacy from my own experience. Even though the honey may contain a small portion of iron, yet this is not the curative agent, for other articles of diet which contain just as much iron, are entirely powerless. As honey, by long-continued use, in large doses, may produce flatulence, acidity, colicky pains and diarrhœa, it may be well to combine it with suitable correctives, as the bitters, carminatives, &c., and to take it fasting in the morning in the dose of a tablespoonful.

2. We are still entirely in the dark as to the means which increase or diminish the secretion of liver-sugar. There is here a wide field open for inquiry into the powers of remedial agents. But, little as we know with regard to this subject, we are yet acquainted with one agent which promotes the secretion of sugar, and we find it efficacious in the treatment of chlorosis; it is nothing else than cold water. It was shown some years ago, by Dr. Petters, in the "Prager Vierteljahrschrift," that the secretion of sugar in diabetes is increased by drinking cold water copiously;

and the experience of every hydropathic institution proves that chlorosis may be cured by the same means.

Many physicians regard the free use of cold water as a means which acts only by powerfully increasing the waste of tissue; and therefore they give no credit to the assurances of hydropathic physicians, that chlorosis is cured by this means; for, according to their theoretic views, it must aggravate the disease.

In chemical processes, water at one time plays the part of an acid, at another that of a base; it has, also, a two-fold action as a remedy. Acting in one way, it greatly increases the waste of tissue [Katamorphosis]; acting in another, it promotes its formation [Anamorphosis]. Indeed, a glance at the development of the fœtus throws light on the action of water in the organism, and may remove some rusty prejudices. Schlossberger has shown that in the earliest condition of fœtal life, the blood is of all the parts poorest in water, while after birth it is richest. Since, then, the younger the fœtus is, its vegetable life is the more energetic, and the formation of tissue is more active than its waste, it is evident that this formation is increased in activity by a large amount of water.

3. Whether the last of these three inferences will be verified, the future will show. What is chiefly needed in the inquiry is an accurate method of investigation, in order to measure exactly the variations observed in the secretion of liver-sugar after the employment of different agents. When such a method is found, then the question as to the effect of iron will be easily decided.

These remarks are not yet sufficient to prove beyond all doubt that a failure in the secretion of liver-sugar is the immediate cause of the disease; yet I think I have shown the insufficiency of the prevailing opinions on the subject to explain the morbid process, and on the other hand the high probability of the new theory. The future may give sentence in the matter. Should every doubt be finally removed, it would then be shown that chlorosis and diabetes mellitus are, in their essential nature, diametrically opposite morbid processes; and experimental pathology might one day succeed in producing chlorosis artificially, as has been done in the case of diabetes, so that the means would thus be found for the radical cure of diabetes.—*Maryland and Virginia Med. Journal.*

MORMONISM, IN ITS PHYSICAL, MENTAL AND MORAL ASPECTS.

THE following is a brief extract from the sanitary report of Assistant Surgeon Bartholow, one of the medical officers attached to the army corps which passed the winter of 1857–58 in Utah.

"The Mormon, of all the human animals now walking this globe, is the most curious in every relation. It would be quite

beyond the scope of this report to say anything of the political and religious aspects of Mormonism; but as a great social solecism, seriously affecting the physical stamina and mental health, it is full of interest to the medical philosopher. Isolated in the narrow valleys of Utah, and practising the rites of a religion grossly material, of which polygamy is the main element and cohesive force, the Mormon people have arrived at a physical and mental condition, in a few years of growth, such as densely-populated communities in the older parts of the world, hereditary victims of all the vices of civilization, have been ages in reaching. This condition is shown by the preponderance of female births, by the mortality of infantine life, by the large proportion of the albuminous and gelatinous types of constitution, and by the striking uniformity in facial expression and in physical conformation of the younger portion of the community. The 'peculiar institution' is practically upheld by the older men, the elders, bishops, apostles, and prophets; and so eager is the search for young virgins, that notwithstanding the preponderance of the female population, a large percentage of the younger men remain unmarried. To sustain the system, girls are 'sealed' at the earliest manifestations of puberty, and I am credibly informed that means are not unfrequently made use of to hasten the period. The activity of the reproductive function, as a rule, is not diminished by polygamy; on the contrary, the women are remarkable for fecundity; but in the harems the proportion of children arriving at maturity is much less than in the rural districts of our country. An illustration of this fact is afforded by the results in that chief of polygamists, Brigham Young's case. He has, at least, forty wives. A large number of children have been born to him, a majority of whom died in infancy, leaving twenty-four, according to the most reliable accounts. These forty women in monogamous society, married, would have probably one hundred and sixty children, two thirds of whom, under hygienic circumstances equally favorable, would have been reared. In Brigham Young and his wives, we have presented the most favorable conditions for successful polygamy possible in Mormon society, yet, in this instance, the violation of a natural law has been speedily evinced. One of the most deplorable effects of polygamy is shown in the general weakness of the boys and young men, the progeny of the 'peculiar institution.' The most observant Mormons cannot hide from themselves the evidence of these sad effects. One of their saints, Heber C. Kimball, in recent sermons, has adverted to this sexual debility, but, with a singular blindness, attributed it to a vicious style of dressing. The sexual desires are stimulated to an unnatural degree at a very early age, and as female virtue is easy, opportunities are not wanting for their gratification. It is a curious fact, that Mormonism makes its impress upon the countenance. Whether owing to the practice of a purely sensual and material religion, to the pre-

mature development of the passions, or to isolation, there is, nevertheless, an expression of countenance and a style of feature, which may be styled the Mormon expression and style; an expression compounded of sensuality, cunning, suspicion, and a smirking self-conceit. The yellow, sunken, cadaverous visage; the greenish-colored eyes; the thick, protuberant lips; the low forehead; the light, yellowish hair; and the lank, angular person, constitute an appearance so characteristic of the new race, the production of polygamy, as to distinguish them at a glance. The older men and women present all the physical peculiarities of the nationalities to which they belong; but these peculiarities are not propagated and continued in the new race; they are lost in the prevailing Mormon type.

"If Mormonism received no additions from outside sources, these influences continuing, it is not difficult to foresee that it would eventually die out. The increase of population, independently of large annual accessions from abroad, has not been co-equal with the increase in other portions of our country. The results of polygamy here are not to be compared, without some limitations, to the results of the same institution elsewhere: its decadence must follow more speedily. In eastern life, where it has been a recognized domestic institution for ages, women are prepared for its continuance, and do not feel degraded by their association with it. The women of this Territory, how fanatical and ignorant soever, recognize their wide departure from the normal standard in all Christian countries; and, from the degradation of the mother, follows that of the child, and physical degeneracy is not a remote consequence of moral depravity.

"Mormonism, considered in a relation purely sanitary, presents some interesting features. The Mormon theology contemplates the cure of disease by miraculous interposition; hence the disciples of the healing art are not held in much estimation. The church authorities are exceedingly jealous at an attempt to cure by ordinary therapeutics, and denounce from the pulpit any invasion of their special province. Though they claim for the "laying on of hands" *(cheirapsia)* wonderful efficacy, the number of deformities, the result of malpractice, to be seen in any of the populous towns, rather indicates a necessity for the use of carnal means. The art of surgery is at a low ebb. Epidemic erysipelas of a virulent form is reported to prevail in this Territory, but, thus far, no cases of the disease have fallen under the observation of the medical officers serving with this army. I have reason to believe that 'erysipelas' is a conventional term applied to various dissimilar affections, as rheumatism, erythema, anthrax, &c."

Bibliographical Notices.

Statistical Report on the Sickness and Mortality of the Army of the United States. Compiled from the Records of the Surgeon-General's Office, embracing a period of five years, from January, 1855, to January, 1860. Prepared under the direction of Brevet Brigadier General Thomas Lawson, Surgeon General U. S. Army, by Richard H. Coolidge, M.D., Assistant Surgeon U. S. Army. Washington: Executive Document. 1860.

There is no accession to our national medical literature more important and instructive than our army medical reports, comprising, as they do, accurate statistical accounts of the sickness and mortality in the Army of the United States, and thus forming a basis for future generalization, as regards the various forms in which disease reveals itself in the diverse climates, and under the widely different influences to which different portions of our territory are subjected. The character of the patient, it is true, as well as the unhealthfulness of the stations often necessarily selected for the troops, and the unpardonable and disgraceful accommodations to which they are too often obliged to submit, are such as considerably to qualify the conclusions from these carefully-drawn statistics, particularly with reference to climatic and telluric influences on disease. But yet sufficient is presented to form a most valuable body of medical information, prepared, as it is, by gentlemen thoroughly educated and accomplished in medicine and in all the kindred sciences.

The first statistical report on sickness and mortality in the Army, was compiled under the direction of the present Surgeon-General Lawson, and comprised a period of twenty years, from January, 1819, to January, 1839: the second, embracing a period of sixteen years, brought the statistical record down to 1855, when the present record commences, embracing the subsequent five years—that is, from January, 1855, to January, 1860. Included in the abstracts and tables of the present report are the aggregate results for each region, as given in the report of 1856, thereby enhancing the value of the statistics, by extending them over a period of twenty-one years.

Those familiar with the exact boundaries of the United States will remember that it resembles in form a somewhat irregular parallelogram, extending from north to south through about twenty degrees of latitude, and measuring from east to west not far from fifty degrees of longitude—that is, from one sea to the other. It will be noted also that this extended area is intersected by two ranges of lofty mountains, running north and south, and dividing it into three unequal portions—the central, or *intermontane* one being considerably broader than the Atlantic and Pacific slopes. Through this valley, and also running north and south, is the great river, which, fed by innumerable tributaries, drains this vast tract, and subdivides it into two unequal portions. These four grand geographical divisions differ more or less widely in their telluric and meteorological characteristics, and hence in their influence upon health and disease. If we now divide this whole territory transversely, by lines drawn at the 35th and 40th parallels of latitude, we have a northerly, central and southern strip, each having pretty distinct climatological features. These divisions, as laid down in the Army Report, comprise, 1st, all the territory be-

tween the 30th and 35th parallels: 2d, that between the 35th and 40th; and, lastly, all north of the 40th. If we now exclude the Pacific Slope, we have nine divisions, formed by two lines running north and south; and two in the direction from east to west. These nine regions are designated as the Northern, Middle and Southern Atlantic; Northern, Middle and Southern Interior East: Northern, Middle and Southern Interior West. An additional one is superadded in the Northern Division, called the region of the Lakes. We have, then, ten regions; which, with that of Florida, Texas, New Mexico, California, Oregon and Utah, each of which is considered separately, make in all sixteen geographical divisions or regions. These regions contain one or more military posts; the statistical and topographical details of which constitute the body of the main report. These details comprise the number of men stationed at any particular post: the number treated as patients, and the number of deaths: also the ratio of cases of sickness and mortality per 1000 men, from which we are able to infer the relative healthfulness of the various stations and regions. Attached to these reports are tables presenting the nature of the diseases treated, with their relative mortality, these being divided into three general classes: 1st, Fevers: 2d, Diseases of the Digestive System; 3d, Diseases of the Respiratory System. Besides these statistical details, valuable observations are given on the treatment which has been found most effectual in certain diseases, as well as much interesting information on the character of the climate, people and productions, animal, vegetable and mineral, of the newer portions of the country. Added to all, is a series of meteorological tables, which must be considered as constituting not the least important part of the work before us.

To give anything like a just exposition of the mass of valuable material here collected, would be impossible in this place; but there are a few points of especial interest which it may be interesting to note.

By referring to the tables, we find that the smallest relative number of cases of phthisis occurred, for the most part, in dry and elevated regions of the country, as in the stations in Utah, New Mexico, and in the Northwest, these being situated at an altitude of from 1000 to 7000 feet above the sea level. The immunity from this disease was also quite marked in Florida, where the altitude does not exceed 30 or 40 feet, and where the stations are in the immediate vicinity of the sea. This can only be accounted for by the influence of malaria, and the equableness of the temperature, the thermometrical range not exceeding, in some years, 30 degrees. Surgeon McParlin remarks that for pulmonary invalids he has seen no better position than that afforded at Fort Dallas. The rate of cases to 1000 was 2.7. So, at Fort Randall, in Nebraska, Dr. Madison states that the climate is certainly unfavorable to the development of phthisis. In all the regions referred to, with the exception of Florida, the air is dry, and the quantity of rain during the year considerably below the average. These facts tend to confirm the observations of Fuchs and others in Europe, and Bowditch in our own country, all of whom infer, from collected data, that this disease is most prevalent on the level of the sea, and decreases with the increase of elevation to a certain point. There is certainly reason, also, to conclude, from these statistics, that the influence of malaria in the blood is antagonistic to a tubercular condition, thus confirming the original discovery of Wells as to the antagonism of ague and

phthisis. The largest number of cases occurred in the Southern Atlantic region, being in the ratio of 7.9 per thousand. The cases on the coast of New England were 4.6.

With regard to intermittent fever, we find that this disease prevailed to the greatest extent in Florida, where it was noticed that phthisis was least prevalent, there being no less than 1809 cases out of 2000, 969 being of the quotidian, and 840 of the tertian type. The fewest cases occurred at West Point.

Rheumatism prevailed most in New Mexico and Northern California, and least in Southern Texas.

A disease which seems to have been peculiarly prevalent in the North Western Interior, was scurvy. During the winter (1856–7), the whole garrison at Fort Randall were more or less affected with this disease, and the troops at many of the stations, especially at Fort Laramie, seem to have suffered from its effects.

The observations of Assistant Surgeon Johns on this affection, are important, as based upon a large experience. He considers, with others, that scurvy is a blood disease, with certain alterations of tissue, resulting primarily from an imperfect supply and ratio of supply of the three kinds of materials for the body, viz., *azotized*, *non-nitrogenous*, and *earthy*; the *point de depart* being the want of *fresh vegetable matter*. Secondly, this being the primary cause, which may, of itself, be sufficient in certain cases to develope the disease, any depressing cause, as exposure to cold, fatigue, bad ventilation and bad food, and particularly too great a preponderance of salted meat, may act as the exciting cause. Thirdly, With respect to treatment, he finds citric acid and potash to be inefficient remedies: the first step being to procure *fresh vegetable matter*. He advises stimulant and tonic remedies, fresh air and nutritious food. In other words, the object is to supply those materials, the want of which has caused the disease.

The influence of salted meat as a depressant, he attributes to the loss of *kreatine*, dissolved out by the brine, and which, as Dr. Ure remarks, has a singular connection with muscular energy. The fact that the Indians and voyageurs rarely suffer from this affection, he regards as partly owing to their use of *jerked*, instead of *salted* meat—the former simply losing its watery portions in the process of drying, while the latter loses one of its most essential principles. In the treatment, he found desiccated vegetables unavailing, and was forced, when potatoes, the best antiscorbutic, were not to be had, to depend often upon the juice of the cactus. The wild artichoke, wild celery and water cresses were also found admirable remedies. He prescribed the cactus juice in the dose of a tumbler full, mixed with a gill of whisky. In alluding to the total inefficacy of citric acid, he instances the fact of the existence of scurvy amongst the lime groves and at Fort Dallas, Florida, where the parade was covered with lemons, limes and oranges. That mental influences play a part in the development of this disease, seems apparent from the fact of its absence in Utah, where everything, but a depressed condition of the mind, favored its production. The excitement attending the march through a new country, with the prospect of a fight with the saints, contributed not a little to that healthful state of body incompatible with the development of this affection.

The diseases which seemed to predominate in the army elsewhere, as may have been expected, were diarrhœa and catarrh. The former

prevailed to the greatest extent, in the Middle Interior West; and least, in the region of New England: while the relative number of cases of the latter affection was highest in the region of the lakes, and lowest in Texas. The Atlantic Coast of New England seems, on the whole, to be the most healthful, according to the report; indeed, Fort Adams, at Newport, is pronounced by Assistant Surgeon Simpson, barring the miserable accommodations for officers and men, the most salubrious military post in the United States. A curious fact is mentioned, connected with utero-gestation in this region, which we give in the words of Dr. S.—"One peculiarity attending many cases of utero-gestation in this section, not only among the women of the garrison, but also in the city of Newport, is, that it is frequently prolonged from two to five weeks beyond the ordinary period, or beyond the calculations of the woman. This is interesing in a medico-legal point of view. In one case that came under my observation, and in which there was no deception, the child was not born until eleven months after the last appearance of the catamenia. It is impossible to account for this peculiarity, but I have abundant evidence to convince me that such is the fact."

An important fact may be mentioned in this connection, with regard to the effect of climate on conception. It is stated by Surgeon Kearney, in his report from California, that the climate of California has a very remarkable influence on the uterine functions, particularly in those from the Atlantic States who have been barren for years or who have never borne children:—"They no sooner become acclimated," says he, "than the uterine organs assume a new tone, and conception immediately follows. This change is not temporary, but continues, and the once sterile woman may calculate with the greatest certainty that the end of every eighteen months will bring an offspring." He attributes this fecundity, which seems to characterize the lower animals as well, to the bland and stimulating climate.

We will merely allude, in conclusion, to the meteorological tables comprised in the report, as being very full and complete. We note the greatest thermometrical range to be 147 degrees, this being at Fort Ripley, Minnesota; at Fort Kent, in Maine, it is 137 deg. The greatest degree of cold at the former post is —50, and at the latter, —37. In not far from the same latitude, in the region of the lakes, and at a similar altitude, at Forts Brady and Howard, in Michigan, we find the range scarcely less, a result we were hardly prepared for. At Fort Wilkins, on Lake Superior, which is almost surrounded by water, the degree of cold is only —9. In Washington Territory, at Fort Steilacoom, in the same latitude, the range is only 95 degrees, the mercury falling to —1. The greatest heat is at Fort Yuma, in Southern California, situated in latitude 32, on the Colorado river; the average maximum heat for three and a half years being 121 degrees, and the range, 102. The least average range was at Fort Orford, Oregon, on the Pacific Coast, in lat. 43, it being nearly the same as at Key West. The greatest amount of rain fell at Fort Pike, Louisiana, this measuring 71.92 inches; the least, at Fort Yuma, measuring 3.24 inches. At Fort Orford, Oregon, where the thermometrical range is least, the rain gauge indicated 68 inches of rain; a fact that might almost have been anticipated.

Many other points might be touched upon, but our space is already more than filled. It is sufficient to say, in the words of another, that

we regard this paper as a "valuable addition to our library of reference, and cannot too much admire the industry and application of its author, or the generosity of the government which brings such opportunities for information before its subjects." We close, with the hope, which we fear is destined to be disappointed, that this may not be the last document of the kind which is to emanate from the government of the United States.

The Anatomy and Physiology of the Placenta; The connection of the Nervous Centres of Animal and Organic Life. By JOHN O'REILLY, M.D., &c. New York.

THIS is a collection of papers "from the *American Medical Gazette*, in which they were published at various periods, without any alteration." They can hardly be said to be conclusive upon the points discussed, and are wanting in clearness of arrangement, and lucidity of statement. The excuse the author makes as to the want of time, is of no weight, for no one has a right to rush into print, without due consideration, upon matters so broad in their relations, involving so many principles and so important in their bearings as are those discussed in his collection.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, DECEMBER 27, 1860.

SECRET REMEDIES.—In one of the best of our exchanges, we are asked why we have "been so remarkably silent" about a much-vaunted remedy, which is said to possess wonderful powers. The name of the preparation we will not mention, as, in doing so, we perhaps should be guilty of calling attention to it, but will merely say that we have been silent, both because we never notice any secret preparation, and because, in this case, a really powerful drug would be deprived of its virtues, if the process alluded to were really used in the manufacture of the nostrum. It is asserted that Indian Hemp is rendered more agreeable and powerful by the removal of its resin. This seems rather a peculiar ground upon which to base the value of the drug, as the best authorities declare that in the resin its power lies, as will be seen by the following extracts relating to this point.

In certain seasons and in warm countries, a *resinous* juice exudes and concretes on the leaves, slender stems and flowers; separated and in masses, it constitutes the *churrus* of Nepal and Hindostan, and to this type, or basis of all the hemp preparations, are the powers of this drug attributable.—*India Journal of Medical and Physical Science*, Vol. VII., No. 49.

M. Gastinel, pharmaceutist at Cairo, has suggested a simple process for the preparation of haschisch. With the dried plant he makes an alcoholic tincture, which he then treats with water to free the *resinous* principle from extractive and other matters, when it is dried.

Haschiscin, as obtained by Gastinel's process, is a complex product, dry, extract-like and *resinoid*, of a deep green color, with a sweetish taste, without any bitter after-taste.—*Rep. de Pharm.*, Mars, 1856, from *Jour. de Med. de Brux.*

The cannabin or pure *hemp resin*, is a purer product than the haschiscin of

Gastinel. It is obtained by the Messrs. Smith, of Edinburgh, by treating the gunjah or hemp tops with repeated effusions of water till exhausted, then with a solution of carbonate of soda; after which it is washed with water and dried. After being thus deprived of inert matter, the hemp is exhausted with alcohol, the tincture treated with milk of lime (1 lime to 12 gunjah), the lime precipitated by SO^3, the filtered liquid agitated with animal charcoal, filtered, evaporated partially, and the resin precipitated with water and dried.—*American Journal of Pharmacy*, Vol. XXVIII., Third Series, Vol. IV., p. 362.

Ophthalmic Reports.—*Messrs. Editors*,—Allow a subscriber of the New Sydenham Society to express, through your Journal, a wish that the essays spoken of below, may be included in the publications of the Society. The abstract which is now being given in the "Ophthalmic Hospital Reports," seems to be more designed for the specialist, into whose hands only the "Reports" are likely to come.

The great interest which the Sydenham Society's translation of Prof. Græfe's Essays on Glaucoma has excited in that field of ophthalmic surgery, would seem to warrant the rendering into English his equally valuable essays on strabismus. There is certainly nothing on this subject in any language so exhaustive and *practical* as these papers from the Professor of the Ophthalmic Clinic of the Berlin University.

For the benefit of those of your readers who are not already familiar with them, I would simply add that they have appeared in the "Archiv. für Ophthalmologie," (now edited by Prof. F. Arlt of Vienna, Prof. F. C. Donders of Utrecht, and Prof. Albrecht von Græfe of Berlin,) Vol. I., Part 1st, pp. 1—81. "Beiträge zur Physiologie und Pathologie der schiefen Augenmuskeln."

Vol. I., Part 1st, pp. 82—120. "Ueber Doppelsehen nach Schieloperationen und Incongruenz der Netzhäute." Vol. III., Part 1st, pp. 177—386, "Beiträge zur Lehre vom Schielen und von der Schiel-Operation."

"Ueber den Mechanismus der Muskelrücklagerung und Muskelvorlagerung bei verschiedenen krankhaften Zuständen."

There are, also, scattered through the "Archiv" since its commencement in 1855, single cases from von Græfe illustrative of this subject.

To these essays certainly should be added the "Klinische Analyse der Motilitätsstörungen des Auges," für Aerzte und Studirende, "von Dr. Alfred Græfe, Assistenz-Arzt an der von Græfe'schen Augenklinik zu Berlin," 1858, the dedication of which, "Meinem Lehrer und Freunde, Albrecht von Græfe," shows from whence it originates, and its consequent value. Should the New Sydenham Society publish von Græfe's essays, it is hoped that they may also translate this "Analysis." B. J. J.

"To the student visiting the Ophthalmic Clinic of the Berlin University, the great attention paid to those forms of disease which demand a precise knowledge of the mechanism of vision, and an exact application of physiological optics for their analysis, diagnosis, and treatment, must form a most striking feature in the course of instruction so indefatigably carried out by the highly-gifted teacher whose name is so inseparably connected with some of the greatest advances in ophthalmic science; a science, for the pursuit of which, among the students of Germany, such enthusiasm has been kindled by his influence. The visitor will, for instance, be particularly struck with the exact methods of investigation pursued in cases of paralytic affections of the external muscles of the eye, and will find as much reason to be gratified with the able manner in which the ætiology of

the affection is traced, and the prognostic and therapeutical part of the question handled, as with the mathematical precision which is brought to bear, for diagnostic purposes, on the resulting abnormities in the act of binocular vision. The series of elaborate papers, by Dr. Wells, now in course of publication in the London *Ophthalmic Hospital Reports*, will tend to show the important results, valuable not only for the oculist, but also for the neuro-pathologist, which can be derived from a careful analysis of functional derangement in the motor forces of the eyeball. These are mainly the results of observations collected in the Berlin Clinic.

"By observations conducted in this manner, the exact results, embodied in Graefe's papers on Strabismus, have been arrived at; serving not only to elucidate the true pathology of that affection, but also to fix the indications for operative interference on a firm basis, and to permit a *certain* prognosis with regard to the effects of an operation, which, by want of due discrimination in its performance, has been so frequently exposed to discredit. I hope that the Sydenham Society, which has already been the medium of making the profession acquainted with Graefe's "Memoirs on the Treatment of Glaucoma," will consider the advisability of including a translation of the Strabismus papers in their valuable series of publications.

"It would be impossible by any abstract to do justice to the elaborate train of reasoning, and the large number of excellent observations contained in the essays on this important and so frequently ill-used subject."

Psychological Journal (London).—This excellent quarterly periodical, devoted to the interests of psychological medicine, is about to commence a new series, under the title of *The Medical Critic and Psychological Journal*, and enlarged to 200 pages. A series of essays are announced on the present and prospective condition of the medical profession, in its moral, social, political, literary, and scientific relations. This Journal is the private property of its distinguished editor, Dr. Forbes Winslow.—*American Medical Times.*

The Cretins of Savoy.—The French Emperor, in the course of his passage through Grenoble, had a long conversation with Dr. Niepce on the causes of goitre and cretinism, of which affections his Majesty had seen some examples in his tour through Savoy. The Emperor presented the cross of the Legion of Honor to Dr. Niepce, who has written a valuable work on the subject, which obtained the prize offered by the Academy of Sciences. His Majesty also announced his intention to encourage the researches on these diseases by offering a premium for the best essay on the question.—*London Lancet.*

Health of San Francisco.—The current month has been free from epidemics of all descriptions. There have been three or four sudden deaths, the causes of which remain unknown from the want of autopsies. There have been a good many cases of ulcerative tonsillitis, and a few of genuine diphtheria of mild form, none fatal. There have been a little more than the usual number of fatal and severe casualties. We have not had more than three days of rain in the month ending 29th Nov.; the remaining days have been delightful, sunny, and without wind. This comparative stillness of the air, with sunshine and moist earth, has doubtless developed miasm, to which the many acute affections that have occurred dring the past two months may doubtless be attributed. The number of deaths in this city, from all causes, during the past two months, is 295.—*Pacific Med. and Surg. Jour.*

A QUACK ADVERTISEMENT.—The New York *Tribune* states that it is to receive over $31,000 for one year's insertion of a quack advertisement in its daily, semi-weekly, and weekly issues. It states that this will prove a profitable investment to the advertiser, in which case this enormous sum of money will, of course, be drawn from the readers of that paper, and be paid back to the quack for his worthless preparation.—*American Medical Times.*

In San Francisco, a fireman fell from the awning of a house on fire, striking upon the pavement. At the autopsy, four of the vertebræ were found crushed. He lived twenty-three hours after the fall, in perfect consciousness.—*Pacific Med. and Surg. Journal.*

EVASION OF THE ENGLISH "MEDICAL ACT."—A practitioner, who professes to be a graduate of this country, has attempted to evade the requirements of the Medical Act, which requires graduation or licensing in England before assuming the title of Doctor, or Surgeon, by styling himself "I. Hamilton, Surgeon, Boston, U. S. Anti-Registered." Previous decisions have determined that the assumption of the title is illegal, unless the practitioner be registered.—*Med. and Surg. Reporter.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, DECEMBER 22d, 1860.

DEATHS.

	Males.	*Females*	*Total*
Deaths during the week,	37	29	66
Average Mortality of the corresponding weeks of the ten years, 1850–1860,	38.2	36.1	74.3
Average corrected to increased population,	..	..	83
Deaths of persons above 90,	..	..	..

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
16	1	4	3	0	0	1	1

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	30.141	Highest point of Thermometer,	40°
Highest point of Barometer,	30.700	Lowest point of Thermometer,	3°
Lowest point of Barometer,	29.266	General direction of Wind,	N. & W.
Mean Temperature,	26°.75	Whole am't of Rain in the week	1.140

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.						THERMOMETER.				SNOW.		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean Height.	Highest Point.	Lowest Point.	7 AM	2 PM	9 PM	Mean Height.	Time.	Measure.	
Monday,	Dec. 10,	29.25	29.40	29.54				33	32	18				
Tuesday,	" 11,	29.65	29.46	29.30				13	17	25				
Wednesday,	" 12,	29.38	29.37	29.38				10	23	21				
Thursday,	" 13,	29.55	29.73	29.32	29.56.	29.88.	29.25.	6	7	2	17.2.	1 hours, 15 m.	0.07.	4
Friday,	" 14,	29.88	29.82	29.77				6	13	9				
Saturday,	" 15,	29.71	29.64	29.59				9	29	27				
Sunday,	" 16,	29.66	29.72	29.70				22	30	23				

COMMUNICATIONS RECEIVED.—Case of Suppression of the Menses.

BOOKS RECEIVED.—A Practical Treatise on the Ætiology, Pathology and Treatment of the Congenital Malformations of the Rectum and Anus. By William Bodenhamen, M.D. (From the Publishers.)—A Handbook of Hospital Practice, or an Introduction to the Practical Study of Medicine at the Bedside. By R. D. Lyons, K.C.C., M.B.T.C.D., M.R.I.A., &c. (From S. S. & W. Wood, New York.)

DIED,—At Sacramento, Cal., Nov. 16th, G. W. Proctor, M.D., formerly of Louisville, Ky., 34.

DEATHS IN BOSTON for the weeking Saturday noon, December 22d, 1860, 66. Males 37—Females 29.—Asthma, 1—inflammation of the brain, 2—bronchitis, 1—burns, 1—cancer (of the uterus), 1—consumption, 16—convulsions, 1—croup, 1—cyanosis, 1—debility, 2—dropsy of the brain, 3—dysentery, 1—scarlet fever, 4—typhoid fever, 1—gastritis, 1—gangrene (of the leg), 1—hæmoptysis, 4—hæmorrhage (of the uterus), 1—disease of the heart, 2—intemperance, 1—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 3—old age, 2—premature birth, 3—puerperal disease, 2—unknown, 7.

Under 5 years of age, 17—between 5 and 20 years, 5—between 20 and 40 years, 15—between 40 and 60 years, 19—above 60 years, 10. Born in the United States, 40—Ireland, 21—other places, 6.